

Elwood Reservoir

2009 Fall Survey Summary

Brad Newcomb, District Manager



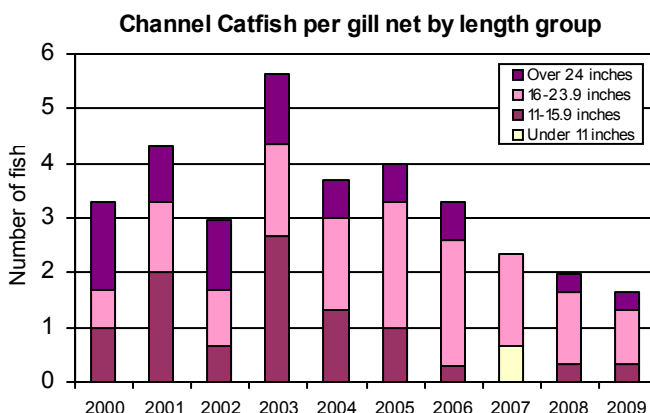
The following text and graphs are the result of netting surveys completed during October 2009 at Elwood Reservoir. For comparative purposes it also shows results from previous years. Fish populations are sampled each fall at Elwood using gill nets, which are used to capture species that live primarily in open water, such as walleye. The nets are set each year at approximately the same locations and dates as previous years, which reduces variability and allows for trend comparisons of species abundance and size distribution.

The following graphs show the total number of fish caught per gill net and the relative abundance of fish within several length categories. The text provides a brief explanation of the information shown in the graphs.

Channel Catfish

The 2009 channel catfish gill net catch continued a decreasing trend since 2003. Most catfish ranged from 16 to 24 inches. There were a few catfish sampled over 24 inches, but no catfish under 11 inches. Low water conditions since 2004 have likely contributed to lower catfish numbers and higher angler harvest.

The average size of catfish was 23 inches, and the largest catfish was 29 inches long. Based on the 2009 netting survey, anglers should find fewer channel catfish with some larger fish available.



Muskellunge

Muskellunge advance fingerlings, which are about 12 to 14 inches long, were stocked in the spring of 1999, 2002, and 2004. Survival of those fish was good, with anglers reporting catches of several sizes over the past years. Survey collections of muskellunge are limited, but survival from the first two stockings was documented. No muskellunge were sampled in surveys from 2005 to 2009.

Muskellunge stockings are regularly scheduled every three years at Elwood Reservoir, but have been suspended until the return of adequate water levels. Muskellunge are currently regulated with a statewide 40-inch minimum size limit and a daily bag limit of one fish.

Walleye

Walleye numbers sampled in 2009 were the lowest recorded in the last ten years. As in 2007-2008, numbers of walleye over 20 inches were greatly lower than previous years. Most walleye sampled were from 10 to 20 inches long.

Walleye from 20 to 25 inches had been well represented in past surveys until 2007. Since most of these walleye are protected by the 18-24 inch slot limit, possible explanations for the decline are poor winter-spring survival or illegal harvest.

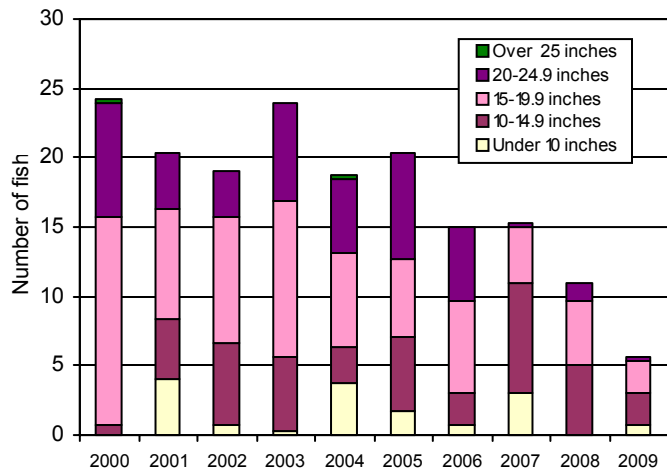
In 2009, walleye were represented from ages one through five. The most dominate year-classes of walleye were from 2007 and 2008, which made up 65% of all walleye sampled. These fish were 12 to 17 inches long. Similar to the past few years, no walleye over 25 inches were present in the 2009 survey, and only one walleye was sampled over 20 inches long.

Recruitment of walleye remains good, with five year-classes represented. The relatively strong 2007 and 2008 year-classes should provide fish in the legal harvest range in the next few years.. The average length of walleye was 12.6 inches, down about three inches from last year. Walleye older than age four contributed only 12% of the total sampled, which was a major decrease from 2008.

2009 was the seventh year of Elwood's protected slot limit for walleye (first in Nebraska). This regulation requires release of all walleye between 18 and 24 inches, with only one fish larger than 24 inches allowed in the daily bag. One of the objectives of this regulation is to protect walleye between ages four through eight, which range from 19 to 25 inches, and therefore improve numbers of larger walleye available to anglers. Results from the last three surveys show the abundance of walleye from 20 to 25 inches was much lower than previous years. Extended low water conditions and severe winter conditions may have contributed to poor survival of larger walleye.

Recent sampling has shown low walleye numbers, including fewer large walleye. Return of higher water levels in 2010 may result in better walleye population dynamics. Future regulation changes will depend on walleye response to higher water levels and normal operation of Elwood Reservoir. Recruitment continues to provide smaller walleye to the population and should provide decent angling the next few years.

Walleye per gill net by length group

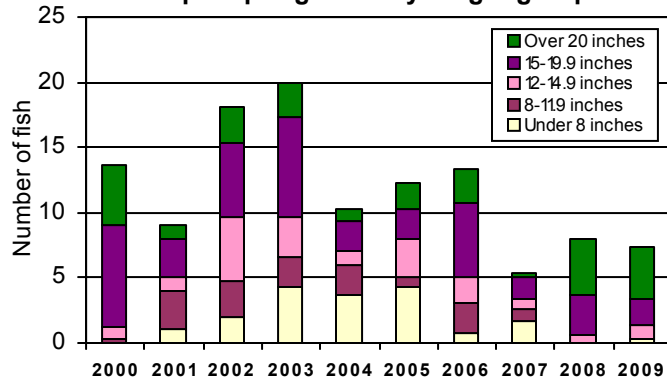


Wipers

Wiper numbers in 2009 were similar to 2008, but are still below the long-term average of about 12 fish per net. As in 2008, the abundance of wipers over 20 inches long was very good, and contributed about 55% of the total sampled.

Survival of stocked wipers has been very consistent, with ages one through seven all represented in the 2009 survey. Wipers from ages 1-3 contributed 41% of the fish sampled, with ages 5 and 6 also well represented at 45% of the sample. The average length of wipers was 16 inches, down slightly from last year. The largest wiper sampled in the 2009 survey was 23 inches long and seven years old.

Wipers per gill net by length group



Elwood anglers should find good numbers of large wipers in 2010. Wipers are present in most size groups up to 23 inches. To improve trophy wiper numbers, Elwood anglers are encouraged to practice selective harvest and are reminded that the combined daily bag limit on wipers and white bass is three fish with only one larger than 18 inches.

Additional Information about Elwood Reservoir

Low water conditions continued throughout 2009 at Elwood Reservoir. The last year of normal operation was 2004, and the reservoir has not approached full levels since then (refer to graph on next page). Elwood Reservoir varied from 30 to 49 feet below full in 2009.

The good news is the forecast for 2010. Central Nebraska Public Power and Irrigation District (Central) has decided to use Elwood for irrigation deliveries in 2010. Elwood will be filled to conservation pool in the spring of 2010, which will be the first time since 2004. Abundant shoreline vegetation growth from the last five years will be inundated, providing excellent aquatic habitat early in 2010. Partial filling was completed in the fall of 2009 to help prepare for normal irrigation operation in 2010.

Several special water deliveries were made to Elwood Reservoir in the spring/summer of 2009 due to a cooperative effort to temporarily waive instream flow rights in the Platte River and with compensatory payment to Central from the Nebraska Game and Parks Commission (NGPC) and the Tri-Basin NRD.

Survey work completed by NGPC indicates fish populations have been affected by extended low water conditions at Elwood. The overall abundance of walleye in 2009 was the lowest recorded in the last ten years, and numbers of walleye from 20 to 25 inches were very low for the third year in a row. Numbers of large channel catfish remained low for a third consecutive year. There has also been concerns with poor body condition of most predator fish in early spring, although fall surveys have shown improvements. A possible explanation for these population impacts are poor winter survival of alewife and gizzard shad, which contributes to poor growth and survival of predator fish species. No alewife have been sampled the past two years.

With normal operation planned for 2010, and Elwood reaching conservation pool for the first time since 2004, aquatic habitat conditions should be excellent the first half of 2010. Fish populations should respond favorably to these conditions, and angling should improve in the long-run. Abundant flooded shoreline vegetation may temporarily make fishing difficult in 2010.

Fish stocking plans have been modified to deal with a full reservoir and abundant shoreline vegetation. Stocking of yellow perch was completed in the fall of 2009, and other panfish species will be considered in 2010. Walleye and wiper stockings will be adjusted to higher surface acres. Depending on long-term operation plans, muskellunge stockings will be considered in the future, with the next stocking tentatively planned for 2011.

Boat access has been an on-going concern with low water at Elwood Reservoir since 2004. Use of the main ramp and dock system should return in early 2010, and hopefully be available most of the year.

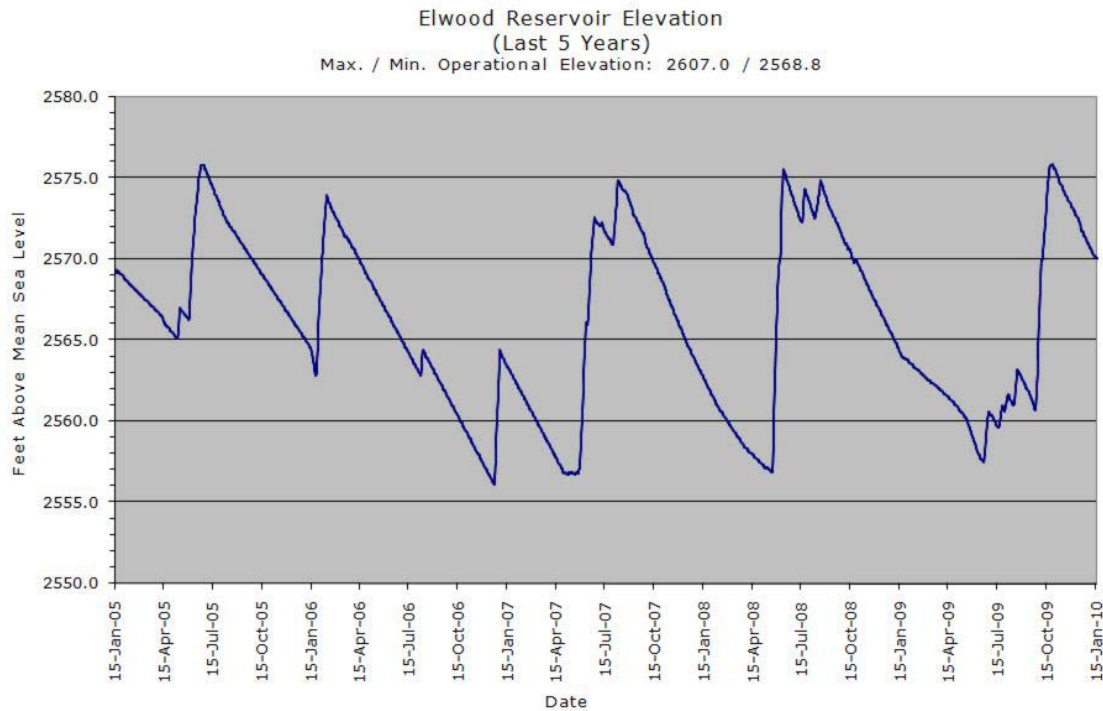
Several photos of Elwood Reservoir in 2009 are included on the next page.

For additional information about fisheries management at Elwood Reservoir, please contact the NGPC Kearney office at 308-865-5310 or by email at the addresses listed below.

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Elwood Reservoir in 2009

Water elevations at Elwood Reservoir the last five years



Shoreline habitat in June and October 2009

Boat ramp conditions in June 2009

